

Conference Abstract

Pokémon Day at the Sternberg: Using Pop-Culture to Teach Principles of Evolution

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Abstract

Pop culture has great potential as a tool for communicating science to the public. The Sternberg Museum of Natural History (FHSM) hosted a public, all-ages outreach event utilizing Pokémon to illustrate common principles of evolution and highlighting the confluence of pop-culture and science. Pokémon is a multi-billion dollar multimedia franchise centered on the training and combat of small monsters, called Pokémon, which grow stronger and ‘evolve’ over time as they bond with their trainer. While ‘evolution’ in the Pokémon franchise is more akin to the process of metamorphosis in the real world, with weaker forms transitioning into stronger ones, principles of mutation, adaptation, and descent with modification are regularly evoked within the series. This close association between Pokémon ‘evolution’ and Darwinian evolution provides an invaluable opportunity to use a popular franchise to explain evolutionary principles through basic comparison, as well as clarifying public misperceptions of evolution by drawing attention to inaccuracies portrayed in the franchise.

Tables were placed around the Museum where fossils and illustrated graphics highlighted similarities between Pokémon designs and their extinct counterparts, while teaching the principles of adaptation, descent with modification, and island biogeography. Guests were encouraged to use self-directed learning to interact with Museum staff who explained the evolutionary principles outlined at that table and the inferences that can be made regarding the biology and ecology of the organisms the Pokémon represent. A scavenger hunt was also implemented to encourage exploration of the museum; younger guests were tasked

with seeking additional Pokémon hidden throughout the museum. This interactive activity rewarded exploration of both event-specific displays and traditional exhibits with a small bag of candy upon completion. Arts-and-crafts related to Pokémon and evolution were available for very young guests. The event took place over five hours on a Saturday; normal admission fees were required. Principles learned from this Pokémon Day event can be used by the FHSM and other institutions to further refine engaging and informative public outreach events in the future, utilizing different pop-culture franchises to teach scientific principles to the public.

Keywords

evolution, Pokemon, outreach, museum, Sterberg Museum of Natural History, FHSM, biodiversity

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